

Jia Gu

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Employment

Assistant Professor, Center for Data Science, Zhejiang University	Aug. 2024 - now
Visiting Scholar, The Wharton School, University of Pennsylvania	Aug. 2025 - Jan. 2026

Education

Center for Statistical Science <i>Ph.D. in Statistics. Advisor: Prof. Song Xi Chen</i>	Peking University Sep. 2019 - Jun. 2024
School of Mathematics <i>B.Sc. in Statistics</i>	Nankai University Sep. 2015 - Jun. 2019

Research interests

Distributed Inference, Federated Learning, Differential Privacy, Online Inference, Epidemic Statistical modeling, Data Fusion

Research

1. Xiao, Z. L., **Gu, J.** and Chen, S.X. (2024+). Testing for Heterogeneity in Distributed Statistical Learning, *under review*.
2. **Gu, J.** and Chen, S.X. (2024). Statistical Inference for Decentralized Federated Learning. *The Annals of Statistics*.
3. **Gu, J.**, Tang, C.Z., Yan, H., Cui, Q., Li, L.F. and Zhou, J. (2023). FAST: a Fused and Accurate Shrinkage Tree for Heterogeneous Treatment Effects Estimation. *Advances in Neural Information Processing Systems (NeurIPS)*.
4. **Gu, J.** and Chen, S.X. (2023). Distributed Statistical Inference under Heterogeneity. *Journal of Machine Learning Research*, 24:1 - 57 .
5. Zhu, Y.R., **Gu, J.**, Qiu, Y.M. and Chen, S.X. (2023). Estimating COVID-19 Vaccine Protection Rates via Dynamic Epidemiological Models – A study of 10 countries. *The Annals of Applied Statistics*, 17(4): 3324-3348.
6. Zhu, Y.R., **Gu, J.**, Qiu, Y.M. and Chen, S.X. (2023). Real-World COVID-19 Vaccine Protection Rates against Infection in the Delta and Omicron Eras. *Research*, 2023:6;0099. doi:10.34133/research.0099.
7. **Gu, J.**, Chen, S.X., Dong, Q. and Qiu, Y.M. (2021). The Effect of Population Migration and Wuhan Lockdown on the Control of COVID-19 Based on vSEIdRm Model (in Chinese). *Statistical Research*, 38:114-127.
8. Yan, H., Zhu, Y., **Gu, J.**, Huang, Y., Sun, H.X., Zhang, X.Y., Wang, Y.Q., Qiu, Y.M. and Chen, S.X. (2021). Better Strategies for Containing COVID-19 Pandemic—A Study of 25 Countries via a vSIADR Model. *Proceedings of the Royal Society A*, 477(2248): 20200440.
9. **Gu, J.**, Yan, H. , Huang Y.X., Zhu, Y.R., Sun H.X., Qiu, Y.M. and Chen, S.X. (2020). Comparing containment measures among nations by epidemiological effects of COVID-19. *National Science Review*, 7: 1847–1851. doi: 10.1093/nsr/nwaa243.
10. Sun, H.X., Qiu, Y.M., Yan, H., Huang, Y.X., Zhu, Y.R., **Gu, J.** and Chen, S.X. (2020). Tracking reproductivity of COVID-19 epidemic in China with varying coefficient SIR model (with discussion). *Journal of Data Science*, 18(3): 455-472.

Grants

NSFC Youth Fund (Class C)	Jan. 2026 - Dec. 2028
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Academic services

- Reviewer (Journal): IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI), Journal of Business & Economic Statistics, Biometrics, Journal of Nonparametric Statistics, Journal of Multivariate Analysis, Journal of Statistical Planning and Inference, SCIENCE CHINA Mathematics
- Reviewer (Conference): NeurIPS 2025

Teaching

Topics on Engineering Frontier Technology	Fall 2024
Asymptotic Statistics	Spring 2025

Invited presentations

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| • The 1st JCSDS, Beijing, China | 2023.07 |
| • The 37th NeurIPS, New Orleans, USA | 2023.12 |

- The 2ed JCSDS, Kunming, China 2024.07
- The 18th CFE-CMStatistics, London, UK 2024.12